

CLAIMS

1. A socket connector, comprising:

a socket base having a slot oriented at a first angle with respect to a bottom surface of said socket base; and

a contact having a base beam and a retention portion, said retention portion forming an initial angle with said base beam before said contact is assembled with said socket base that differs from said first angle, said socket base receiving said contact with said retention portion held in said slot such that an angle between said base beam and said retention portion is changed from said initial angle.
2. The socket connector of claim 1, wherein said retention portion includes retention barbs extending from sides thereof, said retention barbs frictionally engaging said slot to retain said contact within said socket base.
3. The socket connector of claim 1, further including a socket cover releasably connected to said socket base and covering said contact, said socket cover having a rigid top surface that contains apertures to permit heat transfer to said contact.
4. The socket connector of claim 1, wherein said retention portion is narrower than said base beam such that said base beam is flexibly formed at one end with said retention portion.
5. The socket connector of claim 1, wherein said socket base includes a channel proximate said slot, said channel being defined by an end wall opposite said slot, said contact including a support portion joining said base beam with a contact arm, said support portion of said contact abutting against said end wall of said channel.
6. The socket connector of claim 1, further comprising a plurality of said contacts, wherein a base beam for each of said contacts abuts against said bottom surface of said socket base to maintain said base beams coplanar with one another in a contact seating plane.

7. The socket connector of claim 1, further comprising a plurality of said contacts, wherein a base beam for each of said contacts carries a solder ball, said base beams abutting against said bottom surface of said socket base to maintain said solder balls coplanar with one another.

8. The socket connector of claim 1, wherein said base beam includes a flexible arm extending downward therefrom, said flexible arm being configured to receive a solder ball.

9. The socket connector of claim 1, wherein said base beam and retention portion form said initial angle with one another when said contact is in a relaxed, unbiased condition.

10. The socket connector of claim 1, wherein when said contact is mounted to said socket base, said angle between said retention portion and base beam increases.

11. A socket connector, comprising:

a base having a first co-efficient of thermal expansion; and

a contact having a second co-efficient of thermal expansion differing from said first co-efficient of thermal expansion, said contact including a retention portion formed at one end of said contact and a contact arm formed at an opposite end of said contact, said retention portion being secured to said base to permit relative movement between said contact and base during temperature changes.

12. The socket connector of claim 11, wherein said base includes a slot that is oriented at a first angle with a bottom surface of said base, said contact including a base beam formed with said retention portion at an initial angle that differs from said first angle, said base carrying said contact with said retention portion held in said slot such that said base beam is biased away from said retention portion by said bottom surface of said base.

13. The socket connector of claim 11, further including a socket cover releasably connected to said base and covering said contact, said socket cover having a rigid top surface that contains apertures to permit heat transfer to said contact.

14. The socket connector of claim 11, wherein said contact includes a base beam that is flexibly joined to said retention portion such that, when said contact expands or contracts due to temperature changes, said base beam flexes with respect to said retention portion.

15. The socket connector of claim 11, wherein said contact arm is configured to engage a processor and said contact carries a solder ball that is configured to engage a circuit board, said retention portion being remotely located from said contact arm and solder ball to afford said contact arm and solder ball a limited range of motion when said retention portion is retained within said base.

16. The socket connector of claim 11, wherein said contact includes a base beam provided between said retention portion and said contact arm, said base beam moving relative to said base during temperature changes.

17. The socket connector of claim 11, wherein said contact includes an arm extending downward from said contact to receive a solder ball that is configured to be soldered to a circuit board, said arm permitting relative motion between said contact and a circuit board during soldering.

18. A socket connector, comprising:

a base carrying a contact, said contact including a contact arm extending beyond a top surface of said base, said contact including a base beam extending along a bottom surface of said base, said base beam being configured to carry a solder ball; and

a socket cover releasably connected to said base proximate said top surface and covering said contact arm, said socket cover having a rigid top surface that contains a heat transfer aperture configured to permit heat to transfer to said contact.

19. The socket connector of claim 18, wherein said base includes a channel and a slot proximate each other, said slot being oriented at a first angle with said bottom surface of said base, said contact having a retention portion that forms an initial angle with said base beam that differs from said first angle before said contact is assembled with said base, said base holding said contact such that said base beam is biased by said bottom surface of said base to change an angle between said base beam and retention portion.

20. The socket connector of claim 18, wherein said base includes a slot, said contact having a retention portion that is formed with said base beam, said retention portion having retention barbs extending from sides thereof, said retention portion extending through said slot such that said retention barbs engage said base to retain said contact within said base.